REMARKS

This amendment is in response to the Office Action dated January 25, 2006. This amendment should obviate outstanding issues and make the pending claims allowable. Reconsideration of this application is respectfully requested in view of the remarks that follow.

STATUS OF CLAIMS

Claims 1-33 are pending.

Claims 21-33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to non-elected species.

Claims 1-7, 9-17, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ferrari et al. (U.S. 2003/0097357).

Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari et al. (U.S. 2003/0097357) in view of Tip et al. (U.S. 2003/0018603).

OVERVIEW OF CLAIMED INVENTION

Claims 1 and 11 of the present invention disclose a system and method for ordering nodes associated with entities in a document. Entities in a document are parsed and nodes representing the entities and the relationship among them are created. These created nodes are then grouped into a plurality of regions, wherein each of these regions defines an area within an n-dimensional space. Each region is formatted and stored into pages.

RESTRICTION ELECTION WITH TRAVERSE

Applicant's representative, Ramraj Soundararajan, made an election with traverse in the telephone conversation on 01/18/2006. However, the Office Action of 01/25/2006 fails to

identify any of the reasons given for traverse. So, Applicants have included in this response the

reasoning behind why such an election was made with traverse.

The Examiner has divided claims 1-33 into the following two groups:

Group I: Claims 1-20 are drawn to manipulating data structure, classified in

class 707, subclass 101; and

Group II: Claims 21-33 are drawn to database accessing and ordering,

classified in class 707, subclass 7.

The examiner states in the office action of 01/25/2006 that the inventions in Group I and

Group II are related as sub-combinations disclosed as usable together in a single combination.

The examiner in the office action of 01/25/2006 further states that the invention in Group I has a

separate utility such as manipulation of data, which is different from the invention of Group II,

which has a utility of database access and ordering.

Applicants, as noted in the telephone conversation of 1/18/2006 respectfully disagree

with the Examiner contention that the groups identified by the Examiner have separate utility,

thereby needing to be classified in separate class/subclass combinations.

Specifically, Applicants respectfully submit that claims 1-20 are directed to a system and

method for ordering a plurality of nodes associated with entities in a document based on

grouping of nodes into a plurality of regions defining an area within an n-dimensional space

(where n>1). Claims 21-33 are directed to a method and an article of manufacture having code

to implement the ordering nodes in a document via isolated regions. Applicants respectfully

contend that claims in both the groups are directed towards the same utility of ordering nodes in a document.

Further, Applicants respectfully contend that the examiner correctly identifies claims 1-20 as falling under the subclass 101 as the subject matter of class 707 is defined as "data processing: database and file management or data structures" and the subject matter encompassed by subclass 101 is defined as "including data structure conversion, compression, compaction, and compilation, for optimization of database and file sorting, and for data compatibility between different or multiple database." However, Applicants respectfully assert that the Examiner erroneously identifies claims 21-33 as subject matter encompassed by subclass 7 is defined as "sorting". The class definition of subclass 7 is provided below:

"Subject matter directed to data oriented accessing methods benefiting from the creation of ordered lists.

(1) Note. For clarification, sorting includes elementary sorting methods such as selection sort, bubble sort, distribution counting, and other methods, such as Quicksort, Radix Sort, Priority Queues including heap sort, Selection, and Merging, and External Sort.

(2) Note. This subclass is for sorting database data or files. Generic sorting, per se, is classified elsewhere."

Applicants respectfully remind the Examiner that the ordering nodes in a document via isolated ordered regions, as per claims 21-33, where each node is associated with a level and a step is not the same as a traditional sorting algorithm such as bubble sort, distribution counting, Quicksort, Radix Sort, Priority Queues including heap sort, Selection, and Merging, and External Sort.

Based on the above arguments and the definitions of the subclasses used, Applicants respectfully assert that claims 21-33 should also be classified under subclass 101. Hence, Applicants have elected Group I (1-20) with traverse.

REJECTIONS UNDER 35 U.S.C. 102(e)

Claims 1-7, 9-17, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ferrari et al. (U.S. 2003/0097357). To properly rejected under 35 U.S.C 102(e), a reference must provide for all the limitations (i.e., system elements in case of a system claim and method steps in case of a method claim) of the claim being rejected. Applicants contend (as shown below) that the Ferrari reference fails to provide for many of the features of claims 1-7, 9-17, 19-20.

Ferrari et al. generally discusses a search and navigation system/method that enables the search and navigation of a collection of documents or other materials using common attributes associated with those materials. Ferrari et al. use a taxonomy definition process to identify sets of attributes that appropriately characterize documents, wherein the attributes effectively distinguish and navigate among documents in a domain.

Applicants' pending independent claims 1 and 11, on the other hand, teach the ordering of nodes associated with entities in a document. Entities in a document are parsed and nodes representing the entities and the relationship among them are created. These created nodes are then grouped into a plurality of regions, wherein each of these regions defines an area within a n-dimensional space. The regions are formatted for storage in one or more pages.

On page 4 of the office action dated 01/25/2006, the examiner contends that figures 14A-C and paragraphs 90 of Ferrari et al. teach "a node generator parsing said entities in said document and creating a plurality of nodes that represent said entities and relationships that

exists among said entities". The applicants respectfully wish to note that it is unclear from the figures and paragraph cited by the examiner, which element/feature of the Ferrari reference, the examiner is using to equate to the "<u>node generator</u>" of applicants' pending independent claim 1.

A closer reading of paragraph 90 of Ferrari et al., merely discloses a knowledge base as a repository of information formed by two process: taxonomy definition and classification. Attribute- value pairs (i.e., terms) are used to classify documents. Conspicuously absent from the in the citation and the entire Ferrari et al. reference is any teaching of a <u>node generator</u> that parses entities of a document and creates nodes that represents entities and relationships among the entities.

On page 4 of the office action dated 01/25/2006, the examiner also contends that paragraphs 0251 and 0258 provide for the limitation of "a <u>node grouper</u> grouping said created plurality of nodes into a plurality of regions, each of said regions defining an area within a n-dimensional space". Again, the examiner has not clearly specified which element /feature of the Ferrari et al. reference, is equated to the <u>node grouper</u> of applicants' pending independent claim 1.

Paragraphs 0251 and 0258 of the Ferrari et al. reference, define scalability problems in a search and navigation system and teach partitioning of a collection of materials among multiple slave servers for multidimensional navigation. The applicants respectfully contend that the citations of the entire Ferrari et al. reference do not teach <u>grouping nodes of a document</u> into a plurality of regions wherein these regions define an area in a n-dimensional space. Paragraph 0258 merely teaches how master and slave servers are used to provide search and navigation results to a user, wherein a collection of materials is partitioned among multiple slave servers. The term "multidimensional" in paragraph 0258 of the Ferrari et al. reference is used with respect

to navigation of materials; whereas applicants' pending independent claim 1 uses the term "n-dimensional" with respect to regions that are created by grouping nodes of a document.

The examiner also cites figures 14A-C and paragraphs 0091 and 0092 as providing for the limitation of "wherein n are greater than one". Paragraphs 0091 and 0092 of the Ferrari et al. reference merely discusses using attributes to characterize documents and arranging a collection of documents into domains. Applicants wish to reiterate that none of these citations teach grouping nodes of a document into a plurality of regions wherein these regions define an area within a n-dimensional space, wherein n is greater than one; a limitation required by applicants' pending independent claim 1.

On page 4 of the office action dated 01/25/2006, the examiner further contends that figures 14A-C, 15 and paragraphs 0019 and 0103 of the Ferrari et al. reference provides for the limitation of "a formatter for formatting said plurality of regions for storage". Again, the applicants' wish to reiterate that it is unclear as to which element of the Ferrari et al. reference the examiner is using to equate to the formatter of applicants' pending independent claim 1. Paragraph 0019 merely teaches using rules to manipulate content presentation in a search and navigation system. A user enters a search query and a rules engine manipulates query results based on a user's query and current navigation state. Conspicuously absent from the citation and the entire Ferrari et al. reference is a formatter that formats the regions formed by grouping nodes of a document for storage. Furthermore, paragraph 0103 merely teaches defining a subcollection of documents (i.e. stores) that are grouped to be retrievable at one time and customizing these stores. Also, absent from this citation is a formatter that formats the regions formed by grouping nodes of a document for storage.

Hence, based on the arguments provided above, applicants contend that the Ferrari et al. reference fails to provide for many of the limitations of applicants independent claim 1.

Independent claim 11 of applicants' pending claims provides for similar features as claim 1. Hence, the arguments provided above with respect to claim 1 apply to the limitations of claim 11 and applicants contend that the Ferrari et al. reference fails to provide for all the limitations of applicants' pending independent claim 11.

The above-mentioned arguments with respect to independent claims 1 and 11, substantially apply to dependent claims 2-7, 9, 10, 12-17 and 19-20 as they inherit all the limitations of the claim from which they depend. Hence, applicants respectfully request the examiner to reconsider these claims and withdraw the rejection in light of the arguments presented above.

REJECTIONS UNDER 35 U.S.C. 103(a)

Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrari et al. (U.S. 2003/0097357) in view of Tip et al. (U.S. 2003/0018603).

Claims 8 and 18 of the applicants' pending claims depend from independent claims 1 and 11. Hence, the above-mentioned arguments with respect to independent claims 1 and 11, substantially apply to dependent claims 8 and 18 as they inherit all the limitations of the claim from which they depend. Hence, applicants respectfully request the examiner to reconsider these claims and withdraw the rejection in light of the arguments presented above.

Further, applicants also wish to note that the Tip et al. reference merely teaches an algorithm for constructing a call graph. The Tip et al. reference in view of Ferrari et al. reference by themselves or in their entirety fail to provide for: i) parsing entities in a document and creating a plurality of nodes that represent the entities and relationships that exists among the entities; ii) grouping the created plurality of nodes into a plurality of regions, each of the regions defining an

area within a n-dimensional space, wherein n is greater than one; and iii) formatting the plurality
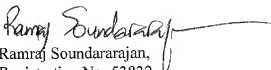
of regions for storage.

SUMMARY

As has been detailed above, none of the references, cited or applied, provide for the

specific claimed details of applicants' presently claimed invention, nor renders them obvious. It

is believed that this case is in condition for allowance and reconsideration thereof and early

issuance is respectfully requested.

As this amendment has been timely filed within the set period of response, no petition for

extension of time or associated fee is required. However, the Commissioner is hereby authorized

to charge any deficiencies in the fees provided to Deposit Account No. 09-0460.

If it is felt that an interview would expedite prosecution of this application, please do not

hesitate to contact applicants' representative at the below number.

Respectfully submitted,

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